

**Notice of Allowability**

Application No.

10/723,538

Examiner

JOSEPH LEYSON

Applicant(s)

KUIJPERS ET AL.

Art Unit

1791

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed on 20 July 2009.
2. ☒ The allowed claim(s) is/are 19-24 renumbered 1-6, respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 20090929.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

/Robert B. Davis/  
Primary Examiner, Art Unit 1791

### **EXAMINER'S AMENDMENT**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 20, 2009 has been entered.
2. The drawings were received on January 19, 2009. These drawings are acceptable.
3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Josef Hoffman on September 29, 2009.

The application has been amended as follows:

In the specification, the paragraph beginning on p. 4, line 1, has been replaced with the following:

With reference to Fig. 3, the numeral 38 designates the intake end of extrusion tube 18 which receives meat emulsion from the pump 16. Tube 18 has a discharge end 40 which discharges a strand of meat emulsion to the twisting mechanism 20. The tube

18 conventionally has a hollow cylindrical bore 42. A restrictor element 44 (Fig. 3) has a ramp 46 which extends forwardly and upwardly from the bottom of bore 42. The top surface 48 of the restrictor element 44 ~~[[48]]~~ has an arcuate shape as best shown in Figs. 5 or 5A. The forward end of the restrictor element terminates in a diagonal undercut front end 50 which is located approximately 10mms from the discharge end 40. As shown in fig. 3, the inclined ramp 46 and the diagonal undercut front end 50 have different angles relative to a longitudinal axis of the tube 18. The cross sectional area of the restrictor element with respect to the cross sectional area in a hollow portion of the tube is between 1-2 to 1-8. The restrictor element is located in an off-center position within the tube. The restrictor element engages a bottom portion of the hollow tube, and has a concave arcuate surface on a top surface thereof. An open passageway is formed above the restrictor element having an elliptical cross-sectional shape. The restrictor element 44 is secured with tube 18 by set screw 51. A passage 52 is created above the restrictor element. The single sausage strand 54 (Fig. 6) has a portion 56 comprising a gradient portion 58 wherein the protein fibers 57A are in a longitudinal or linear configuration. The portions 56 and 58 are forced longitudinally through the tube 18 in an uninterrupted fashion past and above the restrictor element 48 so that the linear orientation of the protein fibers 57A therein is significantly not interrupted. Again with reference to Figs. 6 and 8, a lower portion 60 of the sausage strand 54 comprises a lower portion 62 comprised of fibers 57B of random orientation. The lower portion 62 of meat emulsion encounters the ramp 46 of restrictor element 44 and moves upwardly and over the top surface 48 thereof, and thence over the front end

thereof to fill the portion of the stuffing tube forwardly of the restrictor element (Fig. 6). Thus, the sausage strand exiting the tube 18 is comprised of an upper portion 58 wherein the protein fibers are linearly disposed, and a lower portion 62 wherein the protein fibers are variably dispersed in a random fashion by the restrictor element 44. In reality, a gradient exists wherein the linearly aligned fibers of the upper portion 58 gradually transitions to the randomly aligned fibers in the "lower" portion 62. Thus, the discharged sausage strand 58A comprised of the two portions 58 and 62 moves into the heating oven 30. The temperature within the heating oven 30 should be in the range of approximately 650-85° C. In this heated environment, the upper portion 58 shrinks lengthwise at a greater degree than the lower portion 62, and thereupon causes the otherwise straight links 34 to assume the curved condition shown by the links 36 (Figs. 7 and 8). This method is applicable to sausage strands of different diameters.

In the claims:

Claims 25 and 26 have been canceled.

Claims 19 and 23 have been amended as follows:

19. (currently amended) A sausage extrusion tube,  
comprising,  
an elongated hollow tube having a meat emulsion intake end and a meat  
emulsion discharge end,  
a restrictor element in the tube to partially restrict the longitudinal movement of  
sausage emulsion therethrough so as to divide meat emulsion passing therethrough  
into separate longitudinal portions comprised of first portion of meat emulsion that  
passes, engages and is deflected to pass over the restrictor element, and a second  
portion that does not engage the restrictor element and passes thereby without being  
deflected, wherein the restrictor element engages a bottom portion of the hollow tube,  
wherein an inclined ramp is on an upstream end of the restrictor element, wherein the  
restrictor element has a forward end that terminates in a diagonal undercut front end,  
and wherein the inclined ramp and the diagonal undercut front end have different angles  
relative to a longitudinal axis of the tube.

23. (currently amended) The device of claim 19 wherein the restrictor element  
~~engages a bottom portion of the hollow tube, and~~ has a concave arcuate surface on a  
top surface thereof.

4. The following is an examiner's statement of reasons for allowance: the prior art of record does not teach or reasonably suggest, the extrusion tube, as recited by instant claims 19-24, particularly wherein the restrictor element engages the bottom portion of the hollow tube, wherein the inclined ramp is on the upstream end of the restrictor element, wherein the restrictor element has the forward end that terminates in the diagonal undercut front end, and wherein the inclined ramp and the diagonal undercut front end have different angles relative to the longitudinal axis of the tube.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH LEYSON whose telephone number is (571)272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert B. Davis/  
Primary Examiner, Art Unit 1791

/J. L./  
Examiner, Art Unit 1791